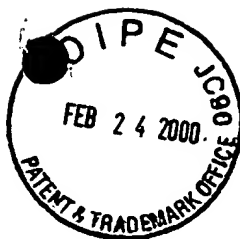


MV-99-001



February 18, 2000

To: Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Fr: George O. Saile, Reg. No. 19,572  
20 McIntosh Drive  
Poughkeepsie, N.Y. 12603

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APR 04 2000

Group 2700

TC 3600 MAIL ROOM

FEB 25 2000

#3 RECEIVED

GP 3662  
K. Ward  
4/5/00  
P. King  
J. Smith  
J. Watson

Subject:

Serial No. 09/465,228 12/17/99

Beomsup Kim

A METHOD AND APPARATUS FOR DIGITAL  
NEAR-END ECHO/NEAR-END CROSSTALK  
CANCELLATION WITH ADAPTIVE  
CORRELATION

Grp. Art Unit: 3662

#### INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation  
In An Application.

The following Patents and/or Publications are submitted to  
comply with the duty of disclosure under CFR 1.97-1.99 and  
37 CFR 1.56. Copies of each document is included herewith.

U.S. Patent 5,329,586 to Agazzi, "Nonlinear Echo Canceller  
for Data Signals Using a Non-Redundant Distributed Lookup-Table  
Architecture", teaches an echo cancelling circuit and  
associated method for cancelling errors encountered in data  
communications decomposing a lookup-table nonlinear echo  
canceller into a plurality of smaller lookup tables, and  
combining outputs of the lookup tables.

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U.S. Patent 5,887,032 to Cioffi, "Method and Apparatus for Crosstalk Cancellation", discusses a method and apparatus for crosstalk cancellation (e.g., NEXT interference) from received signals on a line by adaptively estimating the crosstalk interference from the other lines having interfering transmissions and by cancelling the crosstalk interference using the estimated crosstalk interference.

U.S. Patent 4,995,104 to Gitlin, "Interference Cancelling Circuit and Method", describes a receiver that includes an interference canceller, which receives a corrupted signal and makes an estimate of the desired signal, subtracts the estimated desired signal from a delayed version of the received signal to form an estimate of the interference signal, then forms a final estimate of the desired signal by subtracting the estimated interference from a second delayed version of the received signal.

U.S. Patent 4,669,116 to Agazzi et al., "Non-Linear Echo Cancellation of Data Signals", discloses an echo cancellation circuit for use with full-duplex data transmission systems.

"A Pipelined Adaptive NEXT Canceller", Im et al., IEEE Transactions on Signal Processing, pp. 2252-2258, Aug. 1998, Vol. 46, Issue: 8 ISSN: 1053-587X, describes a near-end crosstalk (NEXT) canceller using a fine-grain pipelined architecture.

"100BASE-T2: 100 Mbit/S Ethernet over Two Pairs of Category-3 Cabling", Cherubini et al., 1997 IEEE International Conference on Communications, pp. 1014-1018, Vol. 2, discusses the 100BASE-T2 physical layer specification for the receivers, particularly the adaptive digital filters that are required for echo and NEXT cancellation, equalization, and interference suppression.

The gigabit Ethernet (1000 BASE-T) as defined by the IEEE standard 802.3ab is well known in the art. The structure capabilities and design consideration are described in:

- 1) "Gigabit Ethernet Over 4-Pair 100 OHM Category 5 Cabling", Gigabit Ethernet Alliance, Cupertino, CA, 1999.
- 2) "Gigabit Ethernet 1000 Base-T", 1000 BASE-T Tutorial Series, Interoperability Laboratory Gigabit Ethernet Consortium, University of New Hampshire, Durham, NH, 1998.
- 3) "Design Considerations for Gigabit Ethernet 1000 Base-T Twisted-pair Transceivers", Hatamian et al., Proceedings of the IEEE 1999 Custom Integrated Circuit Conference, IEEE, 1998, pp. 335-342.

Sincerely,

A handwritten signature in black ink, appearing to read 'SBA', with a long horizontal flourish extending to the right.

Stephen B. Ackerman,  
Reg. No. 37661